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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,476	05/29/2001	Takahiko Iriyama	VX012307	3516

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VARNDELL & VARNDELL, PLLC
106-A S. COLUMBUS ST.
ALEXANDRIA, VA 22314

EXAMINER

SHEEHAN, JOHN P

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 04/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/865,476

Applicant(s)

IRIYAMA ET AL.

Examin r

John P. Sheehan

Art Unit

1742

-- The MAILING DATE of this communication app ars on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 9-13, 19 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-7 and 14 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 8, and 15-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 2 and 3 are objected to because of the following informalities:
 - I. In the formula in claim 2 it appears that "M" should be --N--.
 - II. In the formula in claim 3 it appears that the subscript for "M²_y" should be --z--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 4 to 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukuno et al. (Fukuno, US Patent No. 5,916,376).

Fukuno teaches a specific example of a Sm-Fe-N alloy having the TbCu₇ structure (column 11, line 41), a composition encompassed by applicants' claims, a grain diameter of 200 nm (0.2 microns) and a thickness of 19 microns that are also encompassed by the instant claims. (columns 11 and 22, Table 1, Example 105).

Fukuno teaches that this alloy composition is pulverized and therefore is in powder form

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(column 11, lines 58 to 59). The claims do not distinguish over this specific example alloy taught by Fukuno. It is the Examiner's position that the phrase, "up to" used to describe the lower limit for Sm in claims 4 and 5 and the lower limit for Co in claim 6 reads on zero. These claims therefore do not require the presence of Sm in the case of claims 4 and 5 nor the presence of Fe in the case of claim 6. Accordingly, claims 4 to 6 encompass Fukuno's Example alloy 105.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuno et al. (Fukuno, US Patent No. 5,916, 376).

Fukuno teaches as set forth above. Further, Fukuno teaches that the disclosed magnetic powder is used to make bonded magnets as recited in applicants' claim 14 (for example, see column 1, line 6 to 8 and column 10, lines 36+).

Applicants' claim 14 and Fukuno's Example 105 (columns 11 and 22, Table 1) differ in that Fukuno does not explicitly disclose that the alloy of Example 105 is made into a bonded magnet.

However one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because Fukuno teaches that it is

intended that the disclosed permanent powder be used to make bonded magnets. Thus, Fukuno clearly suggests the use of the alloy powder in a bonded magnet.

Response to Arguments

5. Applicant's arguments filed February 26, 2003 have been fully considered but they are not persuasive.

Applicants' arguments regarding zirconium (applicants' response, page 4+) are not persuasive in that applicants' claims 1, 4 to 7 and 14 do not require the presence of zirconium and therefore encompass Fukuno's Example alloy 105 which also does not contain zirconium.

Allowable Subject Matter

6. Claims 2 and 3 would be allowable if rewritten or amended to overcome the objection set forth in this Office action.

7. Claims 15 to 18 are objected to as being dependent upon objected to base claims 2 and 3, but would be allowable once the minor objections regarding claims 2 and 3 are overcome.

8. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (703) 308-3861. The examiner can normally be reached on T-F (6:30-5:00) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (703) 308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.


John P. Sheehan
Primary Examiner
Art Unit 1742

jps
April 25, 2003